

FILE NO. A34202 - 072595.018,1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hiroji Kawasaki

Serial No. : 09/863,504

Filed : May 23, 2001

For : RECOIL STARTER

Examiner : Gimie, Mahmoud

Group Art Unit: 3747


#7/a
3/4/03
N/Brewer

AMENDMENT

I hereby certify that this paper is being deposited
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an envelope addressed to: Assistant Commissioner for
Patents, Washington, D.C. 20231

February 18, 2003
Date of Deposit

Gary M. Butter
Attorney Name


Signature

33,841
PTO Registration No.

February 18, 2003
Date of Signature

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

In response to the Office Action dated November 22, 2002, applicants
respectfully request the Examiner to reconsider the rejections in view of the following remarks
and amendments.

IN THE CLAIMS:Please amend claim 1 as follows:

1. (Amended) A recoil starter, comprising

a rotary driving member that is adapted to be rotated by pulling a recoil rope,

an interlocking rotary member that is adapted to be rotated independently of the rotary driving member,

a buffering spring coupled directly between the rotary driving member and the interlocking rotary member, applying a rotational bias between the rotary driving member and the interlocking rotary member, and adapted to transmit the rotation of the rotary driving member to the interlocking rotary member, and

a hook portion at one end of the buffering spring and located within the buffering spring.

Please add the following new claims:

--7. (New) A recoil starter, comprising

a rotary driving member that is adapted to be rotated by pulling a recoil rope,

an interlocking rotary member that is adapted to be rotated independently of the rotary driving member, and

a buffering spring coupled between the rotary driving member and the interlocking rotary member, applying a rotational bias between the rotary driving member and the interlocking rotary member, and adapted to transmit the rotation of the rotary driving member to the interlocking rotary member,

wherein the interlocking rotary member includes a power transmission pulley to which the rotation of the rotary driving member is transmitted through the buffering member and a centrifugal ratchet mechanism coupled to the power transmission pulley and adapted to be

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coupled to a crankshaft of an internal combustion engine for transmitting the rotation of the power transmission pulley to the crankshaft of the internal combustion engine.

8. (New) The recoil starter according to claim 7, wherein the rotary driving member and the interlocking rotary member are disposed on a common rotational axis.

9. (New) The recoil starter according to claim 7, wherein the buffering member is a torsion coil spring or a spiral spring.

10. (New) The recoil starter according to claim 8, wherein the buffering member is a torsion coil spring or a spiral spring.—

REMARKS

Reconsideration and withdrawal of the rejections of and objections to the claims set forth in the Official Action of November 22, 2002, are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-6 are pending. Claims 1-5 have been rejected and claim 6 is objected to but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

None of the amendments to the claims introduces new matter.

A marked-up version showing the new claims is appended hereto as Exhibit A.

Rejection of Claims 1-5:

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ohnishi (U.S. Patent No. 5,537,966). Claim 5 stands rejected under 35 U.S.C. § 103(a). The Examiner has asserted that the Ohnishi reference discloses a recoil starter, comprising a rotary driving member (24) that is adapted to be rotated by pulling a recoil rope (18), an interlocking rotary member (36) that is adapted to be rotated independently of the rotary driving member

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(24), and a buffering spring (32) coupled between the rotary driving member (20) and the interlocking rotary member (32), applying a rotational bias between the rotary driving member (24) and the interlocking rotary member (36), and adapted to transmit the rotation of the rotary driving member (24) to the interlocking rotary member (36), as shown in Fig. 1-11.

However, as shown in Fig. 11 of the Ohnishi reference, the starter according to Ohnishi necessarily includes speed reduction mechanism 40 and one-way clutch mechanism 60. In the starter disclosed in Ohnishi, second drum 36 begins rotating through speed reduction mechanism 40, one-way clutch mechanism 60, and spiral spring 32 upon the repetitive driving of recoil pulley 16. According to the invention of the present application, however, the driving of rope reel 21 is directly transmitted to power transmitting pulley 31 through torsion coil spring 15 without the aid of the speed reduction mechanism and the one-way clutch mechanism. Applicants have amended Claim 1 of the instant application to reflect this difference in the structures of Ohnishi and the instant application. Specifically, Claim 1 has been amended to recite that the buffering spring is coupled directly between the rotary driving member and the interlocking rotary member. Accordingly, the Ohnishi reference does not disclose each and every element of amended Claim 1, nor does the Ohnishi reference suggest, either alone or in combination with any references made of record, the combination recited in amended Claim 1.

Thus, applicants respectfully submit that the rejection of Claim 1 under 35 U.S.C. § 102(b) should be withdrawn.

Applicants have submitted herewith a Supplemental Information Disclosure Statement making of record Japanese Examined Utility Model Publication No. 6-16964 (1994). According to a translation of claim 1 of the publication, a recoil starter for transmitting rotation

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of a reel to a pulley located on an engine side is disclosed by utilizing a centrifugal ratchet cam, where the cam is rotatably mounted on the outer periphery of a boss portion extending from a bearing portion of a second reel and the first reel is connected to the cam with a damper spring. However, the invention as recited in amended Claim 1 of the instant application, unlike the Japanese Examined Utility Model Publication No. 6-16964, has hook portion 15a at one end of the torsion coil spring 15 that is located within the torsion coil spring 15 as shown in Figs. 1 and 2, which results in a width of the starter mechanism that can be shortened in the axial direction.

Because Claims 2-6 depend from what is now believed to be allowable Claim 1, the rejections and objections to claims 2-6 should also be withdrawn.

Objection to Claim 6:

Claim 6 stands objected to as being dependent upon a rejected base claim, but, according to the Examiner, would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 has been rewritten as new Claim 7, incorporating the limitations of original Claims 1 and 6 and thus should now be allowable. New Claims 7-10 depend from what is now believed to be allowable Claim 7 and thus should also be allowable.

Conclusion:

In view of the foregoing, this application is believed to be in condition for formal allowance. Prompt and favorable action is respectfully requested.

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Attached hereto as **Appendix A** is a marked-up version of the changes made to the specification by the current amendment. The attached Page is captioned **VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

Respectfully submitted,



Gary M. Butter
PTO Reg. No. 33,841
Tara E. Agnew
PTO Reg. No. 50,589
Attorneys for Applicant
(212) 408-2546

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APPENDIX A

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claim 1 as follows:

1. (Amended) A recoil starter, comprising
a rotary driving member that is adapted to be rotated by pulling a recoil rope,
an interlocking rotary member that is adapted to be rotated independently of the rotary
driving member, and
a buffering spring coupled directly between the rotary driving member and the
interlocking rotary member, applying a rotational bias between the rotary driving member and
the interlocking rotary member, and adapted to transmit the rotation of the rotary driving
member to the interlocking rotary member, and
a hook portion at one end of the buffering spring and located within the buffering spring.

Please add the following new claims:

--7. (New) A recoil starter, comprising
a rotary driving member that is adapted to be rotated by pulling a recoil rope,
an interlocking rotary member that is adapted to be rotated independently of the rotary
driving member, and
a buffering spring coupled between the rotary driving member and the interlocking rotary
member, applying a rotational bias between the rotary driving member and the interlocking
rotary member, and adapted to transmit the rotation of the rotary driving member to the
interlocking rotary member,

wherein the interlocking rotary member includes a power transmission pulley to which the rotation of the rotary driving member is transmitted through the buffering member and a centrifugal ratchet mechanism coupled to the power transmission pulley and adapted to be coupled to a crankshaft of an internal combustion engine for transmitting the rotation of the power transmission pulley to the crankshaft of the internal combustion engine.

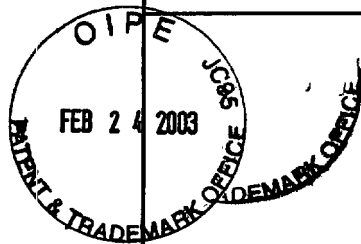
8. (New) The recoil starter according to claim 7, wherein the rotary driving member and the interlocking rotary member are disposed on a common rotational axis.

9. (New) The recoil starter according to claim 7, wherein the buffering member is a torsion coil spring or a spiral spring.

10. (New) The recoil starter according to claim 8, wherein the buffering member is a torsion coil spring or a spiral spring.—

0383501-03301
T06250-10504860

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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Docket Number (Optional)
A34202

In re Application of

Application Number 09/863,504

Filed February 18, 2003

For RECOIL STARTER

* see attached

Group Art Unit 3747

Examiner
Mahmoud M. Gimie

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and appropriate non-small-entity fee are as follows (check time period desired):

- ☐ One month (37 CFR 1.17(a)(1)) \$ _____
- ☐ Two months (37 CFR 1.17(a)(2)) \$ _____
- ☐ Three months (37 CFR 1.17(a)(3)) \$ _____
- ☐ Four months (37 CFR 1.17(a)(4)) \$ _____
- ☐ Five months (37 CFR 1.17(a)(5)) \$ _____

- ☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee amount shown above is reduced by one-half, and the resulting fee is: \$ _____.
 - ☐ A check in the amount of the fee is enclosed.
 - ☐ Payment by credit card. Form PTO-2038 is attached.
 - ☐ The Commissioner has already been authorized to charge fees in this application to a Deposit Account.
 - ☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 02-4377.
- I have enclosed a duplicate copy of this sheet.

I am the ☐ applicant/inventor

- ☐ assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).
- ☒ attorney or agent of record.
- ☐ attorney or agent under 37 CFR 1.34(a).
Registration number if acting under 37 CFR 1.34(a) _____.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

February 18, 2003

Date

PTO Reg No.: 33,841

Signature

Gary M. Butter

Typed or printed name

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☐ Total of _____ forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Hiroji Kawasaki
 Serial No. : 09/863,504 Examiner: Mahmoud M. Gimie
 Filed : May 23, 2001 Group Art Unit : 3747
 For : RECOIL STARTER

#8/IDS
 3/4/03
 Brewer

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

I hereby certify that this paper is being deposited with the
 United States Postal Service as first class mail in an
 envelope addressed to:
 Assistant Commissioner for Patents, Washington, D.C. 20231

February 18, 2003
 Date of Deposit

Gary M. Butter
 Attorney Name

33,841
 PTO Registration No.


 Signature

February 18, 2003
 Date of Signature

Assistant Commissioner for Patents
 Washington, D.C. 20231

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Sir:

Enclosed herewith are patents and/or publications for consideration by the
 Patent and Trademark Office in regard to the invention claimed in the above-described
 application. In compliance with §1.56, such documents are listed in the enclosed
 Form PTO-1449.

Applicants request that the Patent and Trademark Office make of record
 the above-identified documents. Unless otherwise indicated, a full text copy of each
 document is attached. For documents not in English, an English translation or an
 equivalent English language patent or publication is attached. Where a translation is not

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available, a concise explanation of the relevance of each document not in English is included either here or in the specification.

Identification of the documents listed in the attached PTO 1449 Form is not to be construed as an admission of Applicants or Attorneys for Applicants that such documents are available as "prior art" against the above-identified application.

This Information Disclosure Statement is submitted according to the following selected paragraph:

- I. ☐ This Statement is being filed under §1.97(b) within three months of the filing date of the application, or before the first Office Action.
- II. ☒ This Statement is being filed under §1.97(c), with fee, prior to either a final action or a notice of allowance. A check for the fee required by §1.17(p) and a duplicate copy of this Statement is enclosed.
- III. ☐ This Statement is being filed under §1.97(c), with a statement under, §1.97(e) prior to either a final action or a notice of allowance. The undersigned hereby states that (check one):
- ☐ each item of information in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement.
- ☐ no item of information in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this statement under §1.97(e) after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Statement.
- IV. ☐ This Statement is being filed under §1.97(d), with petition and statement under §1.97(e), after a final action or a notice of allowance but prior to payment of the issue fee. The undersigned hereby petitions that this Statement be considered prior to issuance of the patent. A check for the fee required by §1.17(i) and a duplicate copy of this statement is enclosed. The undersigned hereby states that (check one):

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☐ each item of information in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement. A copy of the communication is enclosed.

☐ no item of information in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this statement under §1.97(e) after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Statement.

V. ☐ Copies of the above-cited art were submitted to or cited by the Patent and Trademark Office under parent application Serial No. ____/____ and therefore additional copies of this art are unnecessary.

The Commissioner is hereby authorized to charge payment of any additional fee to Deposit Account No. 02-4377.

Respectfully submitted,

Dated: February 18, 2003

[Signature]

Gary M. Butter
Patent Office Reg. No. 33,841

BAKER BOTTS L.L.P.
30 Rockefeller Plaza
New York, New York 10112-4498

Attorney for Applicant
(212) 408-2620

Enclosures